

Appl. No. 09/943,744
Amtd. Dated July 14, 2004
Reply to Office Action of April 14, 2004

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-137 (canceled)

Claim 138 (Currently amended) An article comprising:

a plurality of fill yarns and warp yarns woven to form a fabric having a fill yarn round packed cover factor of at least about 75% and a warp yarn round packed cover factor of at least about 26%, the fabric including therein in at least one of warp and fill directions a yarn ~~other than a corespun yarn~~, ~~said yarn~~ comprising an intimate blend of at least one fiber of a first type and at least one fiber of a type different from the first type, all said fibers being substantially normal to a cross section of said yarn ~~said~~ at least one fiber of a first type being aligned with and having direct and intimate contact with ~~said~~ fiber of a type different.

Claim 139 (previously presented) The article as in claim 138, wherein the fabric has a fill yarn round packed cover factor of at least about 88%.

Claim 140 (previously presented) The article as in claim 138, wherein the fabric has a warp yarn round packed cover factor of at least about 76%.

Claim 141 (previously presented) The article as in claim 138, wherein the plurality of fill yarns and warp yarns includes a first yarn comprising fibers of the first type and a second yarn comprising fibers of the type different from the first type.

Claim 142 (Canceled)

Claim 143 (previously presented) The article as in claim 138, wherein the plurality of fill yarns and warp yarns includes at least one yarn comprising at least a first fiber bundle and a second

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fiber bundle, the first fiber bundle comprising fibers of the first type and the second fiber bundle comprising fibers of the type different from the first type.

Claim 144 (Canceled)

Claim 145 (previously presented) The article as in claim 143, wherein the first fiber bundle and the second fiber bundle are plied together to form the yarn with a secondary ply twist of at least about $\frac{1}{4}$ that of a primary twist of the first fiber bundle and the second fiber bundle.

Claim 146 (previously presented) The article as in claim 145, wherein the first fiber bundle and the second fiber bundle are plied together to form the yarn with a secondary ply twist of at least about $\frac{1}{2}$ that of a primary twist of the first fiber bundle and the second fiber bundle.

Claim 147 (previously presented) The article as in claim 138, wherein at least one of the fiber of the first type and the fiber of a type different from the first type is a fiber having a tensile breaking strength of at least about 10 g/Denier.

Claim 148 (previously presented) The article as in claim 147, wherein at least one of the fiber of the first type and the fiber of a type different from the first type is formed of a material selected from the group consisting of: para-aramids; liquid crystal polyesters; ultra-high molecular weight polyethylenes; and poly(p-phenylene-2,6-benzobisoxazole) (PBO).

Claim 149 (previously presented) The article as in claim 147, wherein each of the fibers of the first type and the fiber of a type different from the first type is a fiber having a tensile breaking strength of at least about 10 g/Denier.

Claim 150 (previously presented) The article as in claim 147, wherein the fiber of the first type is a fiber having a tensile breaking strength of at least about 10 g/Denier and fiber of a type different from the first type has a tensile breaking strength less than about 10 g/Denier.

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Claim 151 (previously presented) The article as in claim 150, wherein the fiber of a type different from the first type is formed of a material selected from the group consisting of: polyamides; cellulosic materials; polyesters; acrylic polymers; and polyolefins.

Claim 152 (previously presented) The article as in claim 138, wherein the fabric includes therein at least one fiber bundle comprising at least one fiber of the first type and at least one fiber of a type different from the first type.

Claim 153 (previously presented) The article as in claim 152, wherein at least one of the fiber of the first type and the fiber of a type different from the first type is a fiber having a tensile breaking strength of at least about 10 g/Denier.

Claim 154 (previously presented) The article as in claim 153, wherein the fiber of the first type is a fiber having a tensile breaking strength of at least about 10 g/Denier and the fiber of type different from the first type has a tensile breaking strength less than about 10 g/Denier.

Claim 155 (previously presented) The article as in claim 154, wherein the fiber bundle comprises a plurality of fibers, at least 5% of which are fibers of the first type.

Claim 156 (previously presented) The article as in claim 154, wherein the fiber bundle comprises a plurality of fibers, at least 15% of which are fibers of the first type.

Claim 157 (previously presented) The article as in claim 154, wherein the fiber bundle comprises a plurality of fibers, at least 25% of which are fibers of the first type.

Claim 158 (previously presented) The article as in claim 154, wherein the fiber bundle comprises a plurality of fibers, at least 50% of which are fibers of the first type.

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Claim 159 (previously presented) The article as in claim 154, wherein the fiber bundle comprises a plurality of fibers, at least 65% of which are fibers of the first type.

Claim 160 (previously presented) The article as in claim 154, wherein the fiber bundle comprises a plurality of fibers, at least 75% of which are fibers of the first type.

Claim 161 (previously presented) The article as in claim 154, wherein the fiber bundle comprises a plurality of fibers, at least 85% of which are fibers of the first type.

Claim 162 (previously presented) The article as in claim 154, wherein the fiber of the first type has a weight per unit length greater than that of the fiber of a type different from the first type.

Claim 163 (previously presented) The article as in claim 152, wherein each of the fiber of the first type and the fiber of a type different from the first type is a fiber having a tensile breaking strength of at least about 10 g/Denier.

Claim 164 (previously presented) The article as in claim 152, wherein any given cross-section of the fiber bundle along its length includes therein between about 60 and about 100 fibers.

Claim 165 (previously presented) The article as in claim 152, wherein the fiber bundle is formed of a plurality of spun staple fibers each having a length per unit weight exceeding about 50 Cotton Count and a weight per unit length less than about 106 Denier.

Claim 166 (previously presented) The article as in claim 165, wherein the fiber bundle is characterized by a primary twist multiplier of at least about 2.7.

Claim 167 (previously presented) An article of apparel formed, at least in part, of the article as in claim 138.

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Claim 168 (previously presented) The article of apparel as in claim 167, wherein the article of apparel is selected from the group consisting of: gloves; aprons; chaps; pants; boots; gators; shirts; jackets; coats; socks; shoes; undergarments; vests; waders; hats; protective suits; and gauntlets.

Claim 169 (presently amended) A method comprising the step of:

forming a yarn ~~ether than a cores pun yarn~~, said yarn comprising an intimate blend of at least one fiber of a first type and at least one fiber of a type different from the first type, all said fibers being substantially normal to a cross section of said yarn, said at least one fiber of said first type being aligned with and having direct and intimate contact with said at least one fiber of said type different, and

weaving together a plurality of fill yarns and warp yarns into a woven fabric having a fill cover factor of at least about 75%, a warp yarn cover factor of at least about 100%, and including therein within at least one of fill and warp directions a said yarn ~~ether than a cores pun yarn~~.

Claim 170 (presently amended) An article comprising:

a fiber bundle ~~ether than a cores pun fiber bundle~~, said fiber bundle formed of an intimate blend of fibers oriented substantially normal to a cross section of said bundle and including at least one fiber of a first type having a tensile breaking strength of at least about 10 g/Denier, the fiber bundle having a length per unit weight exceeding about 50 Cotton Count and a weight per unit length less than about 106 Denier.

Claim 171 (previously presented) The article as in claim 170, wherein the fiber of the first type is formed of a material selected from the group consisting of: para-aramids, liquid crystal polyesters; ultra-high molecular weight polyethylenes; and poly(p-phenylene-2,6-benzobisoxazole) (PBO).

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Claim 172 (previously presented) The article as in claim 170, said fiber bundle further comprising at least one fiber of a second type having a tensile breaking strength of at least about 10g/Denier.

Claim 173 (previously presented) The article as in claim 170, said fiber bundle further comprising at least one fiber of a second type having a tensile breaking strength less than about 10 g/Denier.

Claim 174 (previously presented) The article as in claim 173, wherein the fiber of the second type is formed of a material selected from the group consisting of: polyamides; cellulosic materials; polyesters; acrylic polymers; and polyolefins.

Claim 175 (previously presented) The article as in claim 173, wherein the fiber of the second type has a tensile breaking strength less than about 8 g/Denier.

Claim 176 (previously presented) The article as in claim 173, wherein the weight per unit length of the fiber of the second type is less than the weight per unit length of the fiber of the first type.

Claim 177 (previously presented) The article as in claim 173, wherein the weight per unit length of the fiber of the first type does not exceed about 5 Denier per fiber.

Claim 178 (previously presented) The article as in claim 177, wherein the weight per unit length of the fiber of the first type does not exceed about 2.5 Denier per fiber.

Claim 179 (previously presented) The article as in claim 178, wherein the weight per unit length of the fiber of the first type does not exceed about 1.5 Denier per fiber.

Claim 180 (previously presented) The article as in claim 179, wherein the weight per unit length of the fiber of the first type does not exceed about 1 Denier per fiber.

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Claim 181 (previously presented) The article as in claim 180, wherein the weight per unit length of the fiber of the first type does not exceed about 0.5 Denier per fiber.

Claim 182 (previously presented) The article as in claim 173, wherein the weight per unit length of the fiber of the second type does not exceed about 1.2 Denier per fiber.

Claim 183 (previously presented) The article as in claim 182, wherein the weight per unit length of the fiber of the second type does not exceed about 0.8 Denier per fiber.

Claim 184 (previously presented) The article as in claim 183, wherein the weight per unit length of the fiber of the second type does not exceed about 0.5 Denier per fiber.

Claim 185 (previously presented) The article as in claim 184, wherein the weight per unit length of the fiber of the second type does not exceed about 0.25 Denier per fiber.

Claim 186 (previously presented) The article as in claim 185, wherein the weight per unit length of the fiber of the second type does not exceed about 0.1 Denier per fiber.

Claim 187 (previously presented) The article as in claim 173, wherein the fiber bundle is formed of plurality of fibers at least 5% of which are fibers of the first type.

Claim 188 (previously presented) The article as in claim 170, wherein the fiber bundle has a length per unit weight exceeding about 60 Cotton Count and a weight per unit length less than about 89 Denier.

Claim 189 (previously presented) The article as in claim 188, wherein the fiber bundle has a length per unit weight exceeding about 70 Cotton Count and a weight per unit length less than about 76 Denier.

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Claim 190 (previously presented) The article as in claim 189, wherein the fiber bundle has a length per unit weight exceeding about 80 Cotton Count and a weight per unit length less than about 66 Denier.

Claim 191 (previously presented) The article as in claim 170, wherein the fiber bundle comprises a plurality of spun staple fibers.

Claim 192 (previously presented) The article as in claim 191, wherein the fiber bundle is formed by a Cotton System spinning process and the length of the staple fibers does not exceed about 2 inches.

Claim 193 (previously presented) The article as in claim 191, wherein the fiber bundle is formed by a Worsted System spinning process and the length of the staple fibers exceeds about 2 inches.

Claim 194 (previously presented) The article as in claim 191, wherein the fiber bundle has a primary twist multiplier of at least about 2.7.

Claim 195 (previously presented) A yarn comprising the fiber bundle as recited in claim 170.

Claim 196 (previously presented) A fabric comprising the yarn as recited in claim 195.

Claim 197 (previously presented) An article of apparel formed, at least in part, from the fabric as recited in claim 196.

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Claim 198. (previously presented) The article of apparel as in claim 197, wherein the article of apparel is selected from the group consisting of: gloves; aprons; chaps; pants; boots; gators; shirts; jackets; coats; socks; shoes; undergarments; vests; waders; hats; protective suits; and gauntlets.

Claims 199-201 (canceled)

202. (Currently amended) An article as in claim 138, said fabric being in weight not more than 10 ounces per square yard.

203. (canceled)

204. (canceled)